Amendments To The Claims

1-5. (Canceled)

6. (Withdrawn) A method, comprising:

a) providing:

i) a patient implanted with a device, wherein said device comprises;

1) a implantable pacemaker element; and

2) a plurality of atrial and ventricular pacing leads connected to said pacemaker element, wherein said pacing leads are configured for simultaneous activation and coursing to the ventricles and atria; and

ii) a plurality of sensing leads connected to said pacemaker coursing to the ventricles and atria;

b) initiating one or more pacing bursts by said pacemaker element, wherein said ventricles and atria are simultaneously paced; and

c) detecting an earliest arriving electrical signal following termination of said pacing bursts.

7. (Withdrawn) The method of Claim 6, wherein prior to step b) a cardiac arrhythmia is detected in said patient.

8. (Withdrawn) The method of Claim 6, wherein said earliest arriving electrical signal is from the ventricles.

9. (Withdrawn) The method of Claim 6, wherein said earliest arriving electrical signal is from the atria.

10. (Withdrawn) The method of Claim 6, further comprising step d) defibrillating said ventricles under conditions such that normal sinus rhythm is restored.

11-26. (Canceled)

27. (Currently Amended) A device, comprising:

a) an implantable pacemaker further comprising an atrial lead and a ventricular lead, said atrial lead and said ventricular lead further comprising distal tip electrodes configured to deliver simultaneous anti-tachycardia pacing bursts and wherein said device is configured to determine an earliest arriving electrical signal detected by said atrial lead distal tip electrodes or said ventricular lead distal tip electrodes following a blanking period resulting from said pacing bursts, wherein said earliest arriving electrical signal diagnoses an origin of an arrhythmia;

b) an implantable cardiac defibrillator attached to said pacemaker; and

c) a timing device connected to said pacemaker, said timing device configured to identify that said origin of an arrhythmia is selected from the group consisting of a supraventricular tachycardia, a ventricular tachycardia, and an atrioventricular nodal reentrant tachycardia.

28. (Previously Presented) The device of Claim 27, wherein said pacemaker further comprises a microprocessor configured to initiate said pacing burst.

29. (Previously Presented) The device of Claim 27, wherein said pacemaker generates said anti-tachycardia pacing burst.

30. (Canceled)

31. (Previously Presented) The device of Claim 27, wherein said atrial lead and said ventricular lead further comprise defibrillation electrodes.

32. (Canceled)

33. (Previously Presented) The device of Claim 27, wherein said pacemaker further comprises a storage memory connected to said atrial and ventricular leads.

34. (Previously Presented) The device of Claim 31, wherein at least one of said defibrillation electrodes is configured to convert an abnormal heart rhythm into normal sinus rhythm.

35. (Previously Presented) The device of Claim 27, wherein said atrial lead and said ventricular lead are quadripolar.

36. (Previously Presented) The method of claim 27, wherein said atrial lead and said ventricular lead further comprise separate conductors.

37. (Currently Amended) A device, comprising:

a) an implantable pacemaker further comprising at least one atrial lead and at least one ventricular lead, said at least one atrial lead and said at least one ventricular lead further comprising distal tip electrodes configured to deliver simultaneous anti-tachycardia pacing bursts and wherein said device is configured to determine an earliest arriving electrical signal detected by said atrial lead distal tip electrodes or said ventricular lead distal tip electrodes following a blanking period resulting from said pacing bursts, wherein said earliest arriving electrical signal diagnoses an origin of an arrhythmia;

b) an implantable cardiac defibrillator attached to said pacemaker; and

c) a timing device connected to said pacemaker, said timing device configured to identify that said diagnosed origin of an arrhythmia is selected from the group consisting of a supraventricular tachycardia, a ventricular tachycardia and an atrioventricular nodal reentrant tachycardia.

38. (Previously Presented) The device of Claim 37, wherein said pacemaker further comprises a microprocessor configured to initiate said pacing burst.

39. (Previously Presented) The device of Claim 37, wherein said pacemaker generates said anti-tachycardia pacing burst.

40. (Previously Presented) The device of Claim 37, wherein said at least one atrial lead and said at least one ventricular lead further comprise defibrillation electrodes.

41. (Previously Presented) The device of Claim 37, wherein said pacemaker further comprises a storage memory connected to said atrial and ventricular leads.

42. (Canceled)

43. (Previously Presented) The device of Claim 37, wherein said at least one atrial lead and said at least one ventricular lead are quadripolar.

44. (Previously Presented) The method of claim 37, wherein said at least one atrial lead and said at least one ventricular lead further comprise separate conductors.